

## STUDY PERFORMANCE REPORT

**State:** Michigan

**Project No.:** F-81-R-7

**Study No.:** 230494

**Title:** Continued monitoring of yellow perch and walleye populations in Michigan waters of Green Bay, Lake Michigan

**Period Covered:** October 1, 2005 to September 30, 2006

**Study Objectives:** (1) Continue monitoring population dynamics of yellow perch and walleye populations through creel surveys, netting, and tagging. (2) Intensify efforts to sample age-0 walleye using trawls and seines. (3) Obtain walleye diet information throughout the year from different areas in the Michigan waters of Green Bay. (4) Align yellow perch tagging and early-life history sampling efforts with lakewide programs.

**Summary:** Considerable progress was made on data organization and analysis, but no progress was made on the final report due to a temporary reassignment of my job duties.

**Findings:** Job 5 was scheduled for 2005-06, and progress is reported below.

**Job 5. Title: Write report.**—I amended this study in 2006-07 to extend it an additional year because I was reassigned for the next 1.5 years to develop fish community based decision models to support recently enacted groundwater protection legislation. Extending the final report deadline will allow me to work on this high priority task during the next year.

Prior to the reassignment, I (with help from Phil Schneeberger and Karen Koval) made considerable progress on restructuring the long-term Green Bay fisheries datasets to facilitate analysis. The bulk of this work involved migrating all data associated with fish catch and diet for 1988-2003 from year-specific DBASE files into a single ACCESS database. In addition, we entered the observational data (e.g., water temperature profiles, secchi depth, precipitation, air temperature, etc.) associated with every gill net and trawl collection for this period into the ACCESS database. This greatly enhanced our ability to evaluate long-term changes in fish and habitat conditions, and explore relations between them. We have already taken advantage of this increased analytic ability. For example, we assessed effects of several aquatic invasive species on habitat conditions and fish communities in Little and Big bays de Noc, presenting some of these findings in an American Fisheries Society symposium. In addition, we summarized trends in abundance, growth, survival, exploitation, and movement patterns of walleye stocks in northern Green Bay since 1989 for a Great Lakes Fisheries Commission publication on the status of walleye stocks in the Great Lakes.

**Prepared by:** Troy G. Zorn

**Date:** September 30, 2006